



EXPLANATION OF SIGNIFICANT DIFFERENCE SUPERFUND FACT SHEET

AUGUST 16, 1999

Stauffer Chemical Company Site

Tarpon Springs, Pinellas County, Florida

INTRODUCTION

The U.S. Environmental Protection Agency (EPA) is issuing this Explanation of Significant Difference (ESD) to provide notice of modifications and clarifications to the cleanup decision document for the Stauffer Chemical Company/Tarpon Springs **Superfund** Site. EPA signed the **Record of Decision (ROD)** in July 1998, selecting the remedy for Operable Unit #1 (OU1), which addresses the soils at the Stauffer facility. This ESD: 1) Raises the remedial cleanup goal for Beryllium based upon the latest research findings and a subsequent change in the remedial cleanup standard for beryllium by both the EPA and the Florida Department of Environmental Protection (FDEP); 2) Updates a citation of the Florida Administrative Code regarding performance standards for the caps to be placed over the consolidation areas; 3) Modifies the performance criteria for the binding mixture to be used in the solidification/stabilization process; and 4) Clarifies the scope of a petroleum products contamination assessment to be performed in coordination with the State of Florida. These modifications do not fundamentally change the selected remedy. The remedy remains fully protective of human health and the environment.

EPA is issuing this ESD as a fact sheet in accordance with Section 117(c) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (**CERCLA**), as amended. CERCLA is known as the **Superfund** law, and the NCP contains the regulations setting forth how EPA will carry out its responsibilities under Superfund. Terms in **bold** are defined in a glossary on page 3.

This ESD will become part of the **Administrative Record** for the cleanup decision for the Stauffer Chemical Company Superfund Site. The record is available for review at the **Information Repository** located at:

*Tarpon Springs Public Library
138 East Lemon Street
Tarpon Springs, FL 34689
(727) 943-4922*

Background

The Stauffer Chemical Company Tarpon Springs Superfund Site (Site) is located on Anclote Road in Tarpon Springs, Pinellas County, Florida. This former elemental phosphorus plant is located on Anclote Road near the Pinellas/Pasco County border, and lies along the Anclote River two miles upstream from the Gulf of Mexico. The town of Tarpon Springs is located 2 miles southeast of the Site. The Site comprises approximately 130 acres and includes the former phosphate processing area, elemental phosphorous production facilities, and office/administrative buildings. While operating, the plant used seventeen unlined waste ponds on the Site. Land use in the surrounding area includes light industrial, commercial, and residential. There are undeveloped areas near the Site. The Site is generally flat with an average elevation of 10 feet above sea level.

EPA placed the site on the **National Priorities List (NPL)** in 1994. In February 1992, the Stauffer Management Company (SMC) voluntarily entered into an Administrative Order on Consent (AOC) with the EPA. SMC completed a detailed study (Remedial Investigation and Feasibility Study or RI/FS) in 1996, under an EPA AOC. This study evaluated the contamination at the Site, determined the potential risks, and identified and evaluated methods for remediating the contamination. EPA selected a remedy to address the site soils in the ROD. SMC is managing the Site on behalf of Rhone-Poulenc, Inc.

SCOPE OF ESD

The ROD calls for consolidation of contaminated soils and sediments at the Site under OU 1. This ESD: 1) Raises the remedial cleanup goal for beryllium in soils at the Site; 2) Updates a citation of the FAC regarding the performance standards for caps; 3) Modifies the performance criteria for the solidified/stabilized waste material 4) Clarifies the scope of a contamination assessment to be performed for the FDEP to address petroleum products.

Selected Remedy for OU1

The major components of the soil operable unit include:

- ! Limited excavation of radiologically and chemically contaminated material/soil which exceed Residential Cleanup Standards.
- ! Consolidation of contaminated material/soils in the main pond area, slag area, and/or other areas on-site.
- ! Placement of institutional controls on the Site to include deed restrictions, land use ordinances, physical barriers, and water supply well permitting restrictions.
- ! In-situ Solidification/Stabilization of pond material and contaminated soil below the water table in the consolidation areas.

Explanation of Significant Difference (ESD)

This ESD presents the following modifications to the ROD:

1) The ROD identified beryllium as a contaminant of concern and provided a cleanup goal of 0.192 parts per million (ppm) in soils, based upon future residential use. This cleanup goal was selected during the development of the Baseline Risk Assessment, which was completed in July 1995. At this time, the driver for 0.192 ppm cleanup goal was the carcinogenic effect of beryllium via soil ingestion. In April 1998 EPA determined that

beryllium is carcinogenic only via the inhalation pathway. Therefore, the remedial cleanup goal is governed by the non-carcinogenic effects of soil ingestion. EPA established a remedial cleanup goal of 160 ppm for beryllium in soils at its Superfund sites and the FDEP established a remedial cleanup goal of 120 ppm for beryllium in soils at their sites.

EPA is raising the cleanup goal for beryllium to 120 ppm at the Stauffer Chemical Company Superfund Site because this higher level was established prior to the signing of the ROD. EPA and FDEP consider this concentration to be protective of human health and the environment.

Further information on the effects of beryllium can be found in EPA's Integrated Risk Information System dated April 3, 1998.

2) The ROD cites Florida Administrative Code (FAC) 62-701.050 as the performance criteria for top cover caps being placed over the consolidation areas.

This reference is no longer in use. The current reference is FAC 62-701.600.5(g). This ESD replaces the former reference with FAC 62-701.600.5(g) to establish the performance criteria for the top cover caps.

3) Page 5 of 61 of the ROD references a contamination assessment to be performed for the FDEP in response to reported soil and ground water contamination in the vicinity of two former above ground fuel oil storage tanks removed in August 1992. Stauffer Management Company performed the contamination assessment and received a release from obligation to conduct site remediation (related to the former tanks) in a March 1994 letter from the FDEP, therefore, this requirement is deleted from the ROD.

Instead, the EPA discovered Light Non-Aqueous Phase Liquids (LNAPLs) in monitoring well 93-5; it is suspected that these LNAPLs are petroleum-related. SMC will conduct a contamination assessment for the FDEP to address the LNAPLs and will perform any necessary remediation.

4) Page 57 of 61 of the ROD specifies the following performance requirements for the binding mixture to be used in the solidification/stabilization process: a minimum 100 psi compressive strength

and a maximum permeability of 1×10^{-6} cm/s. Subsequent research revealed that this standard is applicable to ex-situ solidification/stabilization, but are not applicable to in-situ stabilization. The minimum performance standards for the in-situ solidified/stabilized waste material shall be 50 psi unconfined compressive strength and a permeability of 10^{-5} cm/s respectively, referenced in accordance with "Solidification and Stabilization of CERCLA and RCRA Wastes," EPA/625/6-89/022, May 1989. These are minimum requirements; SMC shall calculate overburden loads, other applicable loadings, appropriate

be verified through bench scale tests during the design phase.

Statutory Determination

The selected remedy as changed by this ESD for the Stauffer Chemical Company **Superfund Site ROD** for OU1 remains protective of human health and the environment, complies with Federal and State requirements that are applicable or relevant and appropriate to the remedial action, and is cost-effective.

safety factors; constructibility; and other conditions when determining the actual performance criteria for the solidified/stabilized waste material. These shall



Glossary

Administrative Record: Documents providing the basis for EPA's selection of a cleanup remedy at a **Superfund** site, placed in the **Information Repository** near a site for public review.

CERCLA or Superfund: The federal law which establishes and authorizes EPA to respond to abandoned or unregulated releases of hazardous waste.

Groundwater: Water found beneath the earth's surface that fills pores between materials such as sand, soil, or gravel.

Information Repository: Documents located near a **Superfund** site for public review.

National Priorities List (NPL): EPA's list of priority hazardous

waste sites that are eligible to receive federal money for response under **Superfund**.

PRP: Potentially Responsible Party - a company or individual who owned or operated a hazardous waste site or has transported or disposed waste to the site.

Record of Decision (ROD): Document explaining EPA's rationale for selection of a cleanup remedy at a **Superfund** site.

Superfund: Common name for the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) established to address uncontrolled or abandoned hazardous waste sites.



EPA CONTACTS

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or

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South Site Management Branch

EPA - Region 4

61 Forsyth Street, SW

Atlanta, Georgia 30303

1-800-435-9234



MAILING LIST ADDITIONS/CORRECTIONS

If you would like your name and address placed on the mailing list
for the
Stauffer Chemical Company Superfund Site, please complete this
form and
return to Carlean Wakefield, EPA, 61 Forsyth Street, SW,
Atlanta, GA 30303.

NAME: _____

ADDRESS: _____

TELEPHONE: _____

United States Environmental Protection Agency	South Superfund Remedial Branch	Region 4 61 Forsyth Street, SE Atlanta, Georgia, 30303
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\$300

Carlean Wakefield, Community Relations

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